

REMARKS/ARGUMENTS

Favorable reconsideration of this application as currently amended and in view of the following remarks is respectfully requested.

Claims 1-3 and 5-7 are currently active in this case. Claims 1 and 5 have been amended by the current amendment. No new matter has been added. See Figure 1 and the corresponding disclosure of the Specification.

In the outstanding office action, claim 1 was objected to; and claims 1-3 and 5-7 were rejected under 35 USC 103(a) as being unpatentable over U.S. patent No. 6,472,868 to Takayama et al. in view of U.S. patent No. 3,465,306 to Snyder.

In response to the objection to claim 1, the misspelled claim term “magnetoresistive” has been corrected to read –magnetostrictive-- No further objection to the claims is therefore anticipated.

Electrode wires formed of amorphous wire are hard and stiff. Consequently, the formation of electrodes for a stress impedance effect element has been difficult. Additionally, when a stress impedance effect elements has been used as an acceleration sensor, the bonding between the substrate of the element and the electrodes has been imperfect. See page 2, first complete paragraph of the Specification.

To address these problems, among others, the present invention (claim 1 as amended) is directed to a method for producing a stress impedance effect element including, among other steps, connecting opposite ends of a magnetostrictive amorphous thin wire and respective electrodes by ultrasonic bonding, the electrodes formed under the magnetostrictive amorphous thin wire; and bonding together the magnetostrictive amorphous thin wire installed in the groove and the elastic thin substrate by applying an insulating adhesive such that the insulating adhesive crosses over the magnetostrictive amorphous thin wire. Claim 5 is directed to the apparatus analog of claim 1.

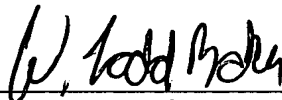
In contrast to the present invention, Takayama merely discloses in column 20, line 64 – column 21, line 40 and illustrates in Figure 27 a magnetic impedance element having first and second electrodes 107 and 108, and thin film negative feedback coils 106 alternately wound on the same plane as bias thin film coils 105. Takayama fails to teach or suggest the features of the present invention including, in particular, that the electrodes are formed in a groove under the magnetostrictive amorphous thin wire by ultrasonic bonding, or that an insulating adhesive is bonded over the magnetostrictive amorphous thin wire.

Snyder illustrates in Figure 5 that cores 2, 2a, and 2b are provided inside conductor 5 and 5a. However, Snyder does not address the deficiencies of Takayama. That is, Snyder also fails to teach or suggest that the conductors (i.e., electrodes) are formed in a groove, that the conductors are connected via ultrasonic bonding to the assembly of cores, or that an insulating adhesive is bonded over the assembly of cores. Thus, Takayama is not believed to anticipate or render obvious the subject matter defined by claims 1 or 5 when considered alone or in combination with Snyder. Dependent claims 2, 3, 6, and 7 are believed to be allowable for at least the same reasons that claims 1 and 5 are believed to be allowable.

In view of the foregoing, no further issues are believed to remain. An early and favorable action is therefore respectfully requested.

Respectfully submitted,

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